P/3704-7

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Patent Application of:

Steven Barritz, et al.   Date: February 3, 2006

Serial No.: 10/034,858   Group Art Unit: 2165

Filed: December 27, 2001   Examiner: Neveen Abel Jalil

For: A COOPERATIVE, INTERACTIVE, HEURISTIC SYSTEM FOR THE CREATION
       AND ONGOING MODIFICATION OF CATEGORIZATION SYSTEMS

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Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

AMENDED APPEAL BRIEF PURSUANT TO 37 C.F.R. §1.192
IN RESPONSE TO THE NOTIFICATION OF NON-COMPLIANT APPEAL BRIEF

Sir:

This appeal is taken from the final action mailed April 19, 2005. In support of the Notice of

Appeal filed August 18, 2005, this amended Appeal Brief is submitted in response to the

Notification of Non-Compliant Appeal Brief mailed on January 3, 2006. It is respectfully

submitted that this amended Appeal Brief complies with all of the requirements of 37 C.F.R.

§41.37(c).

I.   REAL PARTY IN INTEREST:

The real party in interest in the above-identified application is: Treetop Ventures, LLC.

II.   RELATED APPEALS AND INTERFERENCES:

There are no related appeals or interferences of which applicants are aware regarding the

above-identified application.

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III.   **STATUS OF CLAIMS:**

Claims 1-35 stand rejected by the Examiner under 35 U.S.C. §103.

IV.   **STATUS OF AMENDMENTS:**

A response to the final rejection was submitted, however, no amendments were made to the claims.

V.   **SUMMARY OF CLAIMED SUBJECT MATTER:**

The claimed invention recites a system and method which operates substantially interactively and to a degree in an automated manner so as to enable the creation of search categories and search attributes for use on the Internet. The overall effect of the invention is to facilitate the creation and indexing and searching for physical and informational items stored in Internet databases or storage places.

The invention allows both the creators and listers of information on the Internet, such as on websites and the like, as well as those who search for such information to tweak, improve and render in better condition the tools that enable the posting and searching of information on the Internet.

Referring to Fig. 1, an interactive and at least partially automated system 10 is shown that produces search categories and search attributes which facilitate the creation, indexing and searching for physical and informational items stored on Internet databases and the like. The system 10 includes cooperative categorization system 14 that enables users 12 to interactively modify or supplement search terms assigned to items to be found by the system 14. Other features include DAC 16, which enables dynamically adding categories representing categories of items to be found by the system 14, and the similar facility DAA 18, which provides the functionality of dynamically adding attributes.

Continuing with reference to Fig. 1, an adaptive attribute display ("AAD ") module 20 operating alone and/or in conjunction with a guided attribute tagging ("GAT") module 28 and the advanced attribute selection ("AAS") module 24 enable optimal display of attributes to the user of the system.

Other features include a pooling of attributes and categories ("P C/A") module 26 providing for pooling functionality, a consolidation of categories and attributes ("C C/A") module 28 providing for the consolidation of categories and attributes, and a intelligent restructuring of categories and attributes ("IR C/A") module 30, constituting the intelligent restructuring of categories and attributes. See, for example, paragraphs 63-71. Modules 26, 28 and 30 operate individually or cooperatively and to assure a manageable display of categories.

Claim 1, therefore, calls for an interactive system for enhancing the searchability of data, the system comprising a categorization system that associates search terms defining categories or attributes with items to be found a communication system for communicating with the categorization system and with a store of information from which information is to be selected based on the search terms (see paragraphs 35, 36, 38 and 39). Further, a cooperative facility associated with the categorization system that enables users, including listers and searchers, to interactively and at least partially automatically, modify or supplement the search terms initially assigned to the items to be found by the categorization system, wherein the categorization system, communication system and cooperative facility are structured to store the modified or supplemented search terms.

Claim 30 calls for a method for searching for data items in a data store that includes operating a computer-based communication system that effects communications between a plurality of data searchers and the data store. Claim 30 further calls for operating a search engine that enables the data searchers to enter initial key words describing data items to be found. Selected data items are received that are responsive to the initial key words, and a manual review of the received selected data items is initiated. Further, an automatic clustering tool (paragraph 72) is operated that is responsive to the items manually perused by the data searcher, including items not reviewed by the data searcher, the automatic clustering tool responding to action by users, including listers and searchers, by interactively creating and storing categorization criteria by which at least a portion of the received selected data items are reordered or filtered for being viewed by the data searcher, and/or by which a further search is performed and results are based thereon. See, for example, paragraphs 72-76.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL:

The following grounds of rejection are presented for review:

1.   Whether claims 1-35 are unpatentable under 35 U.S.C. §103(a) over Krellenstein (U.S. Patent NO. 5,924,090) in view of Epstein (U.S. Patent Application Publication No. 2004/0049738).

2.   Whether claims 11-13 and 19 stand rejected under 35 U.S.C. §103(a) over Krellenstein (U.S. Patent NO. 5,924,090) in view of Epstein (U.S. Patent Application Publication No. 2004/0049738), and further in view of Mockett et al. (U.S. Patent Application Publication No. 2001/0037359).

VII. ARGUMENT:

The Rejection of Claims 1-35 under 35 U.S.C. §103(a) over Krellenstein (U.S. Patent No. 5,924,090) in view of Epstein (U.S. Patent Application Publication No. 2004/0049738) is in error.

The invention dramatically improves shortcomings of prior art search engines and categorization systems by enabling modifying or supplementing search categories and search attributes interactively and, to a degree automatically, by both listers and searchers. Applicants' claim 1 is directed to an interactive system for "enhancing the searchability of data[.]" More particularly, claim 1 defines "a categorization system," a "communication system" and a "cooperative facility." The categorization system "associates search terms defining categories or attributes with items to be found[.]" The communication system communicates with the categorization system and with "a store of information from which information is to be selected based on the search terms[.]" The cooperative facility is "associated" with the categorization system and "enables users, including listers and searchers, to interactively and at least partially automatically, modify or supplement the search terms initially assigned to the items to be found by the categorization system[.]" The categorization system, the communication system and the cooperative facility "are structured to store the modified or supplemented search terms."

Claim 30, as amended, is a method for searching data items in a data store, and includes functionally similar limitations. Thus, as defined in applicants' claims 1 and 30, as amended,

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searching of information and data is enhanced because listers and searchers can modify or supplement the search terms associated with items to be found.

Krellenstein is directed to a method and apparatus for searching a database of records, Krellenstein does not teach or suggest applicants' claim 1 (or 30) and, instead, suffers from drawbacks such as described in the Background of the Invention portion of applicants' specification (see pages 1-14). Considering the case of a user wishing to locate a particular type and style of chair such as one in a contemporary style, with a high back and no arms, with a wood frame, and with a leather padded seat and back, using either green or blue leather (see applicants' specification at pages 4-6), a search for such an item using Krellenstein's system would result in very few hits. Unlike applicants' claim 1, Krellenstein is directed to processing a search result list to dynamically create search result categories therefrom (see Abstract, Fig. 2, steps 36, 38, 40, 42, and 44). Krellenstein does not teach or suggest modifying or supplementing search categories and search attributes interactively and to a degree automatically by both listers and searchers. Instead, search result categories are associated with a subset of records in a <u>search result list</u> (column 4, lines 67-column 5, line 1). The present invention, in contrast, provides a categorization system that associates search terms with defining categories or attributes with items to be found, and a cooperative facility associated with a categorization system that enables users to interactively modify or supplement the search terms initially assigned to the items to be found by the categorization system.

In the Advisory Action, the Examiner cites to Krellenstein, at column 5, lines 25-41, for supporting his assertion that Krellenstein teaches refining search results and presenting additional search categories to the user apart from the original set. A careful review of the cited passage indicates that a <u>searcher</u> can provide additional search terms or select search result categories to refine a search, but not a <u>lister</u>. Applicants respectfully submit that presenting additional search categories and/or providing additional search terms by a searcher is patentably distinct from applicants' claimed cooperative facility that enables listers and searchers to supplement "search terms initially assigned to ... items to be found by the categorization system. Nothing in Krellenstein enables listers and searchers to interactively and at least partially automatically supplement or modify "search terms" initially assigned to "items." Instead, Krellenstein teaches

that searchers can supplement searches by selecting search result categories provided by Krellenstein's system or by submitting additional search terms.

Thus, no modification or supplemented search terms via a cooperative facility, as defined in applicants' claim 1, is provided for both listers and searchers by Krellenstein. Applicants' claim 1, in contrast, enables listers and searchers to modify or supplement search terms that define categories that are associated with items to be found. At page 3 of the Office Action, the Examiner states Krellenstein does not teach including listers or searchers; wherein the categorization system, communication system and cooperative facility or structure to store the modified or supplemented search terms. Accordingly, the Examiner cites to Epstein for teaching listers and searchers and a categorization system, communication system and cooperative facilities that are structured to store the modified or supplemented search terms. Applicants respectfully disagree.

Epstein is directed to an information collaboration and reliability assessment system that uses metadata to provide an information sharing system. Epstein builds on the "open source" model that enables contributors to provide information in a metadata-enhanced database ("metabase") to provide improved information and service. The Examiner cites to various portions of Epstein including, paragraphs 49-52, 43, 64-65 and 55-57 to support his position that Epstein teaches listers and searchers and applicants' claim 1 categorization system, communication system and cooperative facility that are structured to store the modified or supplemented search terms. Applicants respectfully disagree.

Although Epstein is directed to users providing metadata to improve the quality and usefulness of the metabase information, Epstein does not teach or suggest applicants' categorization system that associates search terms defining categories or attributes with items to be found. Further, Epstein does not teach or suggest applicants' claim 1 cooperative facility that is "associated" with the categorization system that enables users (including listers and searchers) to interactively modify or supplement search terms that are initially assigned to items to be found by the categorization system.

Even assuming, for the sake of argument, that one were to combine Krellenstein and Epstein, as the Examiner has done, applicants' claim 1 still would not be taught or suggested. Instead, a database search system would be provided in which metadata is submitted by a user

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with respect to a database entry, and used to categorize search results. Continuing with the example described above with respect to furniture, the same shortcoming described in applicants' Background section of the specification would result. No cooperative facility that is associated with a categorization system (that associates search terms defining categories or attributes with items to be found) would result. The result of the foregoing example would be that very few, if any, suppliers of furniture would be listed that satisfy the criteria directed to the respective search. Further, all of the other shortcomings described in applicants' Background section would not be resolved.

For these reasons, applicants respectfully submit that claim 1 is patentable over the combination of Krellenstein and Epstein.

The dependent claims in the application include all of the limitations of their base independent claims, and impose further limitations thereon which distances them even further from the prior art.

Therefore, since the combination of Krellenstein and Epstein fails to appreciate, disclose or teach the basic concept or solution of the present invention, neither does the combination of the references with the secondary reference, Mockett et al., which the Office Action utilized.

For the reasons set forth above, applicants respectfully submit that this application is in condition for allowance, for which action is earnestly solicited.

VIII. CONCLUSION:

Check No. <u>22246</u> in the amount of $250.00 (small entity) to cover the fee for filing an Appeal Brief is enclosed. Any additional fees or charges required at this time in connection with this application may be charged to Patent and Trademark Office Deposit Account No. 15-0700.

Respectfully submitted,

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Max Moskowitz
Registration No.: 30,576
OSTROLENK, FABER, GERB & SOFFEN, LLP
1180 Avenue of the Americas
New York, New York 10036-8403
Telephone: (212) 382-0700

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Enclosure

CLAIMS APPENDIX

1.   An interactive system for enhancing the searchability of data, the system comprising:

a categorization system that associates search terms defining categories or attributes with items to be found;

a communication system for communicating with the categorization system and with a store of information from which information is to be selected based on the search terms; and

a cooperative facility associated with the categorization system that enables users, including listers and searchers, to interactively and at least partially automatically, modify or supplement the search terms initially assigned to the items to be found by the categorization system, wherein the categorization system, communication system and cooperative facility are structured to store the modified or supplemented search terms.

2.   The interactive system of claim 1, in which the store of information is accessible via the Internet.

3.   The interactive system of claim 1, in which the categorization system enables assigning search terms that are hierarchical and enables assigning search terms that are based on items to be found.

4.   The interactive system of claim 1, in which the cooperative facility is accessible to the users and the users comprise listers of information and/or end searchers which search for the information.

5.   The interactive system of claim 1, in which the search terms comprise categories of items to be found that are arranged hierarchically and attributes of items defined descriptively and the categorization and attribute information is stored in a categorization and attribute database.

6. The interactive system of claim 1, including a facility that dynamically enables a lister of items in the store of information to use existing categorization and attribute data and to add additional categories via the cooperative facility.

7. The interactive system of claim 1, including a facility that dynamically enables at least one searcher of items in the store of information to use existing categorization and attribute data and to add additional attributes via the cooperative facility.

8. The interactive system of claim 7, including a facility that is operable in conjunction with the cooperative facility to limit the number of attributes displayed to users upon their initial viewing of available attributes.

9. The interactive system of claim 8, in which the number of displayed attributes is less than 30.

10. The interactive system of claim 8, in which the displayed attributes are selected based on the greatest number of items under a current category.

11. The interactive system of claim 8, in which the displayed attributes are selected based on prior searchers' activities.

12. The interactive system of claim 8, wherein displayed attributes are selected based on a current searcher's search history.

13. The interactive system of claim 8, in which displayed attributes are ordered based on aggregate use of attribute search terms by prior searchers.

14. The interactive system of claim 1, including a facility that groups together those attributes that are related to one another.

15. The interactive system of claim 1, including a facility that enable searchers to specify attribute selections by entry of a plurality of terms connected by Boolean expressions.

16. The interactive system of claim 1, wherein the cooperative facility includes a secondary facility that imposes limitations on types of attributes permitted to be added to the database holding the attributes.

17. The interactive system of claim 1, in which the cooperative facility includes a subsidiary facility that removes redundancies in categorization and attribute search terms.

18. The interactive system of claim 1, wherein the cooperative facility includes an intelligent restructuring of categories and attributes facility that iteratively reviews the categorization and attribute data to maintain hierarchies that maximize the degree of convergence achieved by a selection at each category level.

19. The interactive system of claim 2, in which the categorization system enables assigning search terms that are hierarchical and enables assigning search terms that are based on item attributes.

20. The interactive system of claim 2, in which the cooperative facility is accessible to the users and the users comprise listers of information and/or end searchers which search for the information.

21. The interactive system of claim 2, in which the search terms comprise categories of items to be found that are arranged hierarchically and attributes of items defined descriptively and the categorization and attribute information is stored in a categorization and attribute database.

22. The interactive system of claim 2, including a facility that dynamically enables a lister of items in the store of information to use existing categorization and attribute data and to

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add additional categories via the cooperative facility.

23. The interactive system of claim 2, including a facility that dynamically enables a searcher of items in the store of information to use existing categorization and attribute data and to add additional attributes via the cooperative facility.

24. The interactive system of claim 2, including a facility that groups together those attributes that are related to one another.

25. The interactive system of claim 2, including a facility that enable searchers to specify attribute selections by entry of a plurality of terms connected by Boolean expressions.

26. The interactive system of claim 2, wherein the cooperative facility includes a secondary facility that imposes limitations on types of attributes permitted to be added to the database holding the attributes.

27. The interactive system of claim 2, in which the cooperative facility includes a subsidiary facility that removes redundancies in categorization and attribute search terms.

28. The interactive system of claim 2, wherein the cooperative facility includes an intelligent restructuring of categories and attributes facility that iteratively reviews the categorization and attribute data to maintain hierarchies that maximize the degree of convergence achieved by a selection at each category level.

29. The interactive system of claim 1, in combination with an automatic clustering facility that minimizes the need of a search engine user to successively refine search terms in a manual fashion, by monitoring which particular result-items a user has historically chosen to visit.

30.   A method for searching for data items in a data store, the method comprising the steps of:

operating a computer-based communication system that effects communications between a plurality of data searchers and the data store containing the data items;
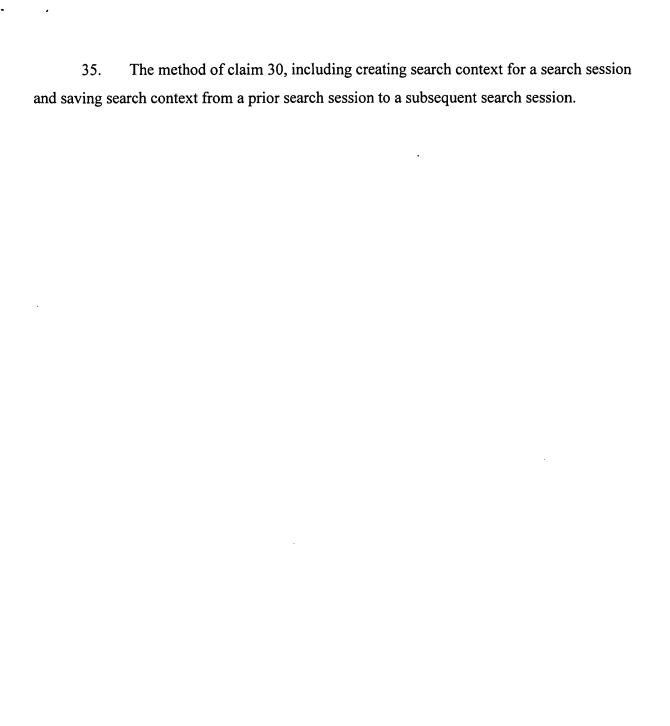
operating a search engine that enables the data searchers to enter initial key words describing data items to be found;

receiving selected data items that are responsive to the initial key words in a given order of items, organized into successive viewable pages;

initiating a manual review of the received selected data items; and

operating an automatic clustering tool that is responsive to the items manually perused by the data searcher, including items not reviewed by the data searcher, the automatic clustering tool responding to action by users, including listers and searchers, by interactively creating and storing categorization criteria by which at least a portion of the received selected data items are reordered or filtered for being viewed by the data searcher, and/or by which a further search is performed and results are based thereon.

31.   The method of claim 30, in which the automatic clustering tool responds to a searcher's data item perusal activity in a prior session.

32.   The method of claim 30, in which the automatic clustering tool constantly revises the categorization criteria in response to continuous reviewing of the selected data items by the data searcher.

33.   The method of claim 30, in which the automatic clustering tool is responsive to a given data searcher's reviewing activity over a period of time.

34.   The method of claim 30, in which the automatic clustering tool eliminates selected data items from being viewed by the data searcher, based on the successively created categorization criteria.

35.   The method of claim 30, including creating search context for a search session and saving search context from a prior search session to a subsequent search session.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

Claims 11-13 and 29 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Krellenstein (U.S. Patent No. 5,924,090) in view of Epstein (U.S. Patent Application Publication No. 2004/0049738), and further in view of Mockett et al. (U.S. Patent Application Publication No. 2001/0037359). Applicants respectfully traverse these rejections.